

# Accessible Pedestrian Buttons and Pedestrian App



By Utah Department of Transportation

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## Benefits Statement

Utah DOT (UDOT) is enhancing safety and accessibility for people with disabilities by deploying Accessible Pedestrian Signals (APS) and a smartphone app. These technologies provide audible cues, remote signal activation, and touchless buttons, helping users navigate intersections safely and efficiently. This reduces accidents, prevents costly lawsuits, and minimizes wait times, saving lives, time, and money. UDOT's community outreach and strategic upgrades ensure resources are effectively allocated and the technology is standardized across the state, supporting their mission of "Keeping Utah Moving" while improving quality of life for all users.

## In this case study you will learn:

1. How UDOT's Accessible Pedestrian Signals (APS) and smartphone app enhance intersection safety for people with disabilities, providing audible cues and remote signal activation.
2. How UDOT utilizes public input and outreach to help prioritize APS installations and raise awareness.
3. How UDOT plans to upgrade 10% of intersections annually, standardizing APS across Utah.

## BACKGROUND

In adapting UDOT's vision of "Keeping Utah Moving" and Mission of "Innovating transportation solutions that strengthen Utah's economy and enhance quality of life", it is necessary to pursue transportation solutions to help all modes of transportation and people with disabilities travel safely on Utah's roadways. UDOT has an increased focus on integrated transportation with the goal to help all users get to where they want to go, when they want to go and in the way they want to go safely. People who are blind or have visual impairment may have difficulty finding or accessing the pedestrian push button or knowing the direction they need to travel. In addition, once they start crossing the street, they may have difficulty knowing the remaining time to cross. Innovative technology that is customized to the user's needs deployed at signalized intersections is a way to help all road users travel safely and efficiently across signalized intersections.

## TSMO PLANNING, STRATEGIES AND DEPLOYMENT

UDOT deployed a newly available smartphone pedestrian app (<https://polara.com/pedapp>) that supplements the audible cues provided at Accessible Pedestrian Signals (APS). This free app serves pedestrians who are blind, visually impaired, or hard-of-hearing and is available for IOS and Android devices. The app tells users which crosswalk signals are nearby. Once they select a direction they wish to cross, the app causes the signal button locator sound to increase so they can find the button and the appropriate place to wait to cross the street. In addition, the pedestrian signal can be activated remotely from the smartphone. The app provides users with audible intersection crossing information such as the street they're crossing, direction they're traveling, the state of the pedestrian crossing signal (e.g. walk, don't walk,

pedestrian clearance), and the time remaining to cross.

UDOT also installed a new pedestrian button that has radar coming out of it so pedestrians don't have to physically touch the button. This comes in handy for those users who are not physically able (due to disability limitations) so they can place a call to the button and safely cross the road.

Our goal is to upgrade 10% of our signalized intersections annually to APS signals.

## COMMUNICATIONS PLANNING AND EXECUTION

UDOT has created a Form that allows the public to request and prioritize installation of these APS signals as they take time and resources to deploy. We keep track of our progress using a Map that is accessible for the public to see. We have reached out to the National Federation of the Blind of Utah making them aware of these new APS signals and encouraging them to help us prioritize locations as well as offering our services to set up test sites for them to practice utilizing the technology and becoming acquainted with it before hitting the streets.

In addition, we have just started a media campaign both with our Governor's office and internally at UDOT in reaching out to the public about these new APS buttons and the ped app being widely deployed in Utah. Also, we prepared a one-minute video that shows the benefit the touchless APS signals have for those with severe disabilities.

Also, UDOT has reached out to several of our partner agencies informing them of our plan to retrofit all existing signalized intersections to APS, sharing with them our Guidance document on how to install and program them so as to be consistent with the traveling public regardless of which agency owns the traffic signal.

## OUTCOME, BENEFITS AND LEARNINGS

With APS signals and the Ped App, people with disabilities can more safely navigate signalized intersections. Kris Johnson, a person with severe disabilities who uses a motorized wheelchair and does not have the ability to physically push the pedestrian button who would have to wait for someone else to push the button for him said in a text message sent to UDOT on August 14, 2023, "... this is Kris @ Provo Rehab and Nursing. This motion sensor crosswalk buttons you installed are awesome. Very helpful to, not only me, but several patients here. I wanted to let you know they are working well. Thank you to you, and anyone else in your Department that helped get them installed."

Eleven months into the fiscal year, UDOT has upgraded 181 (13%) of our intersections so far to APS signals. UDOT will continue to install APS and the supplemental Ped App throughout the state until every intersection is upgraded to this new technology.